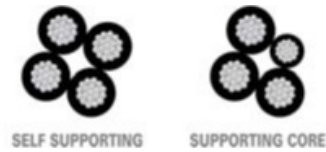


Aerial Bundle Conductor (ABC)



Aerial Bundle Conductor (ABC) 600/1000V Cable System



Cable Description

Self-supporting system consists of four cores of hard-drawn stranded and compacted aluminum conductors of equal cross-section and insulated with carbon-loaded XLPE to ensure UV protection. All cores strained equally. Supporting-core system consists of three phase cores of hard-drawn stranded compacted aluminium conductors insulated with carbon-loaded XLPE laid up around an aluminium-alloy supporting core insulated with carbon loaded XLPE to ensure UV protection. Additional sub-conductors optional in both self-supporting and supporting-core systems.

Application Information

- Economical
- Flexible
- Aesthetically pleasing
- Safe
- Vandal proof
- Durable
- Adaptable

Properties

Specification : SANS 1418 Part 1 and 2

Temperature Range : -10°C to 80°C

Voltage Rating : 600/ 1000 V

Core Identification : Phase 1,2 and 3 indented, • Non strain-bearing neutral, 2 longitudinal ribs on opposite surfaces 0,5mm x 1,00mm • Strain-bearing (supporting) neutral, 1 longitudinal rib on one surface 0,5mm x 1,00mm

Packaging : Available on 500 metre wooden drums

Technical Data Self - Supporting System

Cable Size	Current Rating (Note 1)	Short Circuit Rating (Note 2)	Conductor Resistance @ 20°C	Conductor Resistance (ac)@ 80°	Induction Reactance @ 50Hz	Impedance (Z) @ 50Hz @ 80°C
mm ²	(A)	kA	(/km)	(/km)	(/km)	(/km)
25	105	2,3	1,200	1,490	0,096	1,493
35	144	3,2	0,868	1,078	0,096	1,082
50	183	4,6	0,641	0,796	0,090	0,801
70	228	6,4	0,443	0,550	0,089	0,557
95	277	8,5	0,320	0,397	0,086	0,406
120	322	11,0	0,253	0,314	0,084	0,325
150	350	13,8	0,206	0,256	0,082	0,269

Electrical Properties - Supporting Core System

Cable Size	Current Rating (Note 1)	Short Circuit Rating (Note 2)	Conductor Resistance @ 20°C	Conductor Resistance (ac)@ 80°	Supporting Core Size	Induction Reactance @ 50Hz	Impedance (Z) @ 50Hz @ 80°C
mm ²	(A)	kA	(/km)	(/km)	mm ²	(/km)	(/km)
25	105	2,3	1,200	1,490	54,6	0,101	1,493
35	144	3,2	0,868	1,078	54,6	0,097	1,082
50	183	4,6	0,641	0,796	54,6	0,089	0,801
70	228	6,4	0,443	0,550	54,6	0,086	0,557
95	277	8,5	0,320	0,397	54,6	0,081	0,405
120	322	11,0	0,253	0,314	70	0,079	0,324
150	350	13,8	0,206	0,256	95	0,079	0,268

Aerial Bundle Conductor (ABC) 600/1000V Low Voltage Cable System



SELF SUPPORTING



SUPPORTING CORE

NOTES :

1. Continuous current ratings are given for ambient temperature of 35 °C, and maximum conductor temperature of 80°C.
For other ambient temperatures use adjoining rating factors
2. Short circuit ratings of 1 second duration, for a final conductor temperature of 130 °C.

Temp °C	25	30	35	40	45
Factor	1.11	1.05	1.00	0.94	0.88

Technical Data - Mechanical Properties - Self Supporting System

Cable Size	Conductor Diameter		Core Diameter		Approx. Assembly Diameter	Approx. Assembly Mass	Maximum Design Load
Phase Cores	min	max	min	max	(mm)	(kg/km)	(kN)
mm²	(mm)		(mm)				
25	5,6	6,5	8,4	9,6	25	400	5
35	6,6	7,5	9,8	11,1	27	540	7
50	7,7	8,6	10,9	12,3	29	697	9
70	9,3	10,2	12,9	14,3	33	982	14
95	11,0	12,0	14,6	16,2	37	1302	19
120	12,5	13,5	16,1	17,5	41	1470	24
150	13,9	15,0	17,5	19,2	45	2011	30
Above Plus 25 mm² Auxiliaty Core							
25	N/A	N/A	N/A	N/A	25	505	N/A
35					32	645	
50					34	802	
70					38	1087	
95					42	1407	
120					44	1575	
150					48	2116	

Mechanical Properties - Supporting Core System

Cable Size	Conductor Diameter		Core Diamter		Supporting Core Size	Approx. Assembly Diameter	Approx. Assembly Mass	Maximum Design Load
Phase Cores	min	max	min	max		(mm)	(kg/km)	(kN)
mm²	(mm)		(mm)					
25	5,6	6,5	8,4	9,6	54,6	26	507	6
35	6,6	7,5	9,8	11,1	54,6	28	612	6
50	7,7	8,6	10,9	12,3	54,6	32	730	6
70	9,3	10,2	12,9	14,3	54,6	34	944	6
95	11,0	12,0	14,6	16,2	54,6	38	1183	6
120	12,5	13,5	16,1	17,5	70,0	40	1600	8
150	13,9	15,0	17,5	19,2	95,0	44	1870	13
Above Plus 25 mm² Auxiliaty Core								
25	N/A	N/A	N/A	N/A	N/A	32	612	N/A
35						34	717	
50						36	835	
70						38	1049	
95						42	1288	
120						50	1705	
150						56	1975	